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Letter

Uncertainty surrounding the use of face masks in the community amid the COVID-19 pandemic *



Dear Editor

The pandemic of the 2019 coronavirus disease (COVID-19), which was previously coined as "Wuhan pneumonia", is wreaking havoc worldwide since the first reported case in China in December 2019 (Zhu et al., 2020). As of April 2020, there have been more than three million confirmed cases around the world, affecting the health of people in 210 countries and territories (Centre for Health Protection, 2020). In addition to the public health impact of the disease, this large-scale public health crisis has inflicted immeasurable damage on the global economy due to the nationwide shutdown and home confinement directives that prohibit international and local economic activities. The World Health Organisation (WHO) has declared the outbreak of COVID-19 a pandemic on 11 March 2020, following with advice on infection control measures for the public such as hand hygiene, respiratory etiquette, and the usage of protective equipment. However, there is lingering uncertainty among the general public worldwide about the use of face masks amid the pandemic.

One of the vital areas of uncertainty that is still hanging over the public relates to whether face masks should be used in the community as a preventive measure. There is a consensus among governments and public health agencies that the use of medical masks, also known as surgical masks, is an effective measure for source control and is therefore recommended for symptomatic individuals and healthcare workers (Chughtai et al., 2020). However, whether the use of face masks could protect healthy individuals against the pathogen and reduce the risk of infection by COVID-19 has remained unclear. On one hand, the WHO states that wearing medical masks is not considered necessary for healthy persons unless they are involved in taking care of people with suspected or confirmed COVID-19 infection (WHO, 2020a). On the other hand, it proclaims that "potential advantages of the use of masks by healthy people in the community setting include reducing potential exposure risk from an infected person during the 'pre-symptomatic' period or if an infected person is asymptomatic" (WHO, 2020b). While it is understandable that conserving the use of masks in the community could help to reserve masks for frontline healthcare workers, such inconsistent information provided by the WHO might exaggerate worries among the public and further exacerbate the shortage of essential goods and resources. Indeed, panic buying behaviours in the community has been widely reported amid the COVID-19 pandemic that people are stocking up on masks, hand sanitisers, and even toilet paper. Since there is limited empirical evidence for the effectiveness of universal community masking in protecting the health of the public during an outbreak of novel respiratory infectious diseases, further research in this area is imperative.

Another uncertainty among the public is about the selection of face masks. During the COVID-19 pandemic, the quality of medical masks has been a subject of public concern. There are a variety of metrics used to evaluate face mask performances from different aspects. Common metrics include particle filtration efficiency (PFE), bacteria filtration efficiency (BFE), virus filtration efficiency (VFE), and filtering face pieces (FFP). While even healthcare workers could be unfamiliar with these metrics, limited official information has been provided to assist the public in selecting the appropriate medical masks. Also, there is a lack of consensus regarding the standards of medical masks. For instance, the American Society for Testing and Materials (ASTM) F2100 grading (level 1, 2, and 3) is frequently used in the United States, while in Europe the EN14683 standard (type 1, 2, and 2R) is most common. There is a pressing need for health authorities and agencies to offer standardised guides to the general public on choosing suitable face

The above-mentioned issues regarding the use of face masks in the community have been a recurring problem during infectious disease outbreaks. Indeed, these had been raised during the severe acute respiratory syndrome (SARS) outbreak in the year 2003 (Syed et al., 2003). Unfortunately, the issues are yet to be addressed 17 years afterwards. There is an urge to fill these gaps through coordinated research and administrative efforts among governments and healthcare organisations in combating the current COVID-19 pandemic.

Conflict of Interest

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 $^{\,^{\,\,\}text{th}}$ This article has not been published and is not under consideration for publication elsewhere.

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